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TITLE: The Changing ARSOF Communications
Environment

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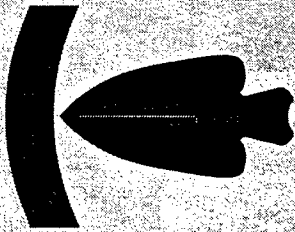the context of the overall compilation report and not as a stand-alone technical report.

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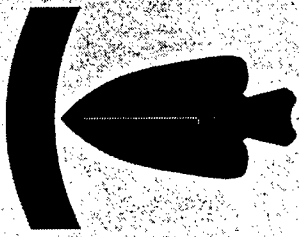ADP010797 thru ADP010815
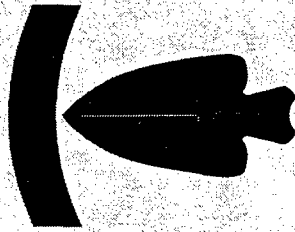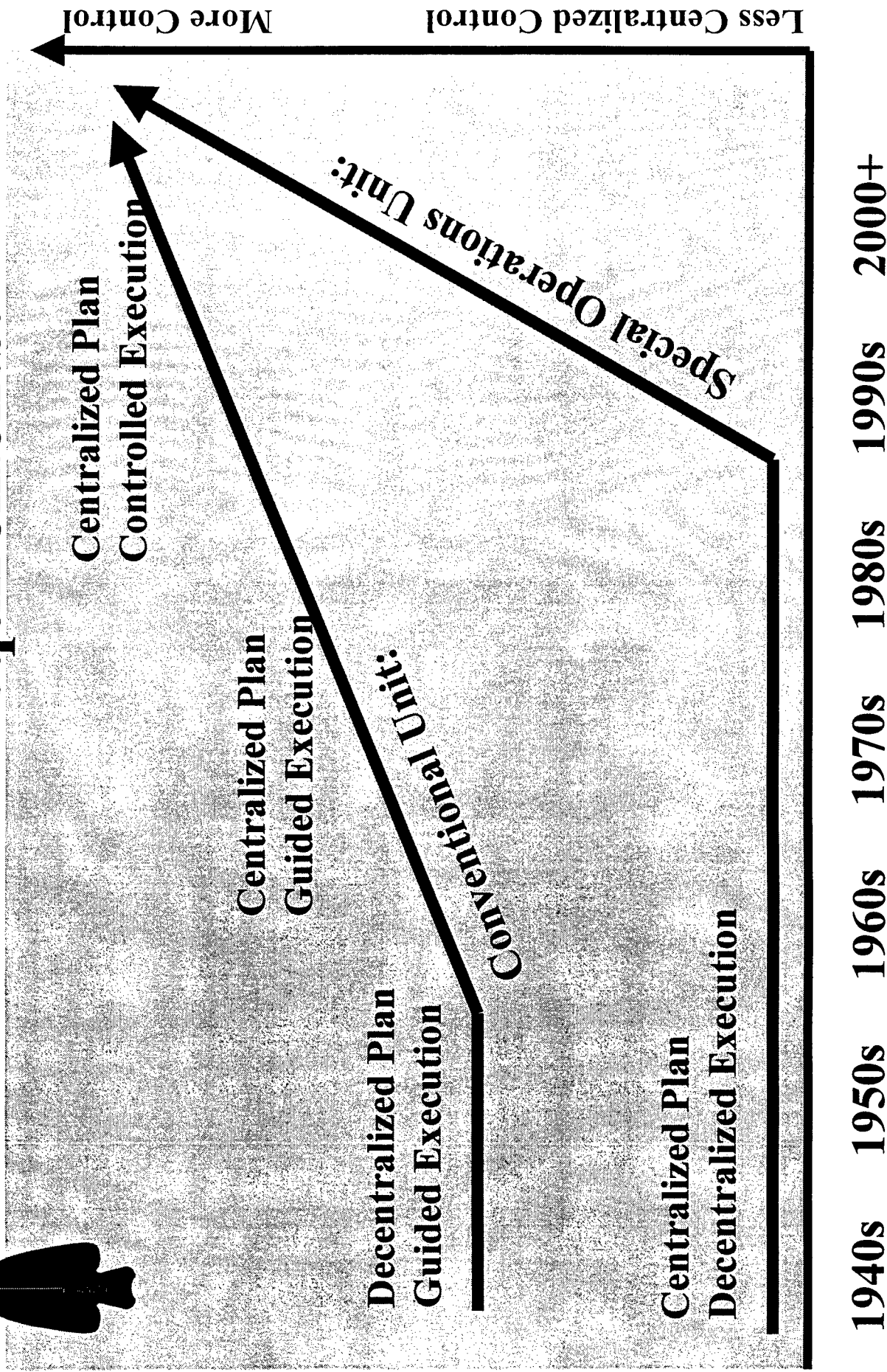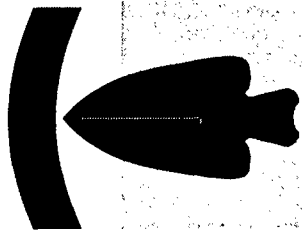
The changing ARSOF Communications Environment

ARSOF Communications doctrine and equipment fieldings must keep pace with changing SOF mission requirements and take advantage of Service initiatives designed to accomplish similar requirements.
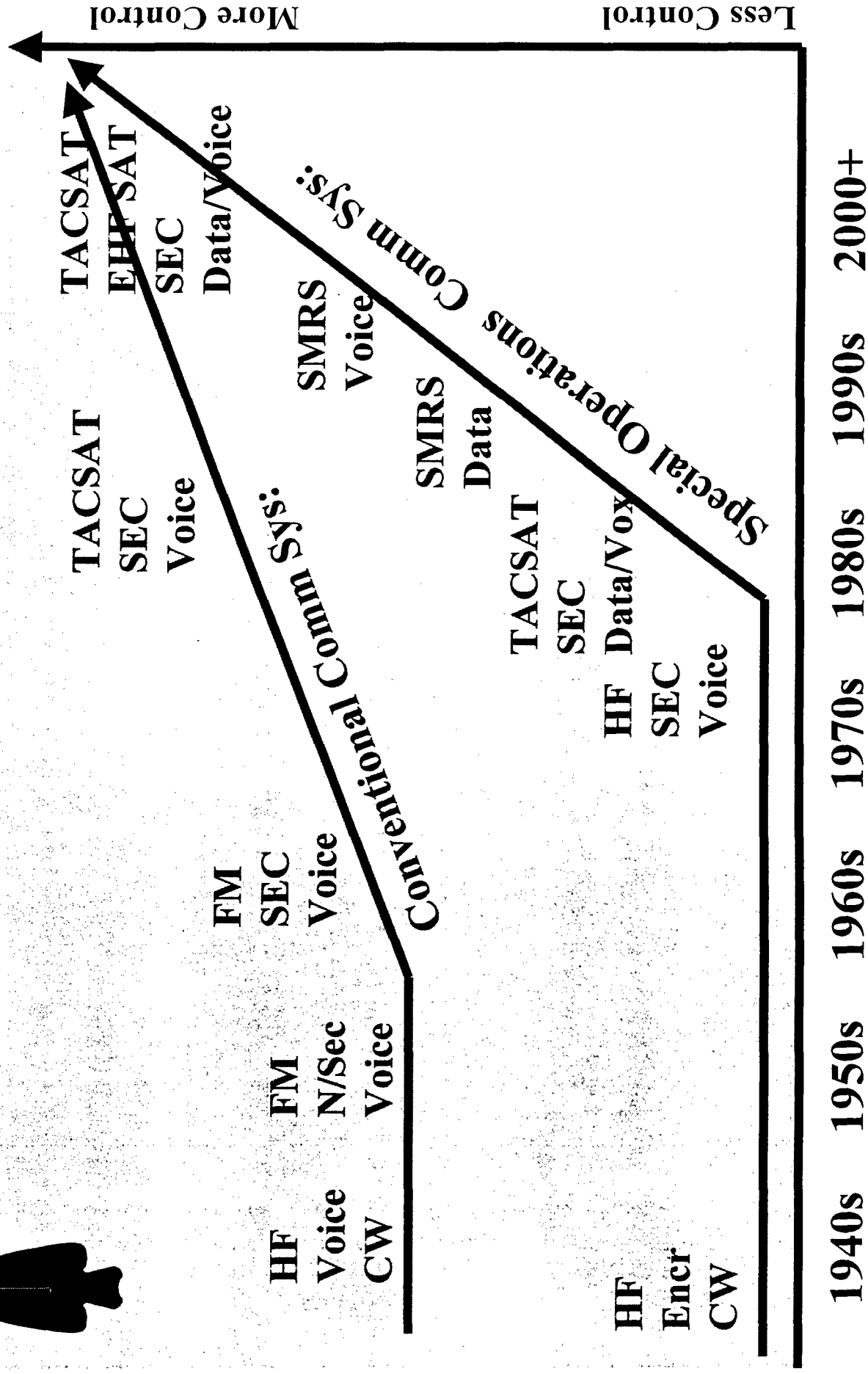
Command and control of ARSOF units has migrated from a decentralized system of scheduled contacts between the detachment on the ground and its immediate headquarters; to centralized system of instantaneous secure voice and data communications linking an increasingly smaller unit on the ground with an increasingly higher headquarters in the Chain of Command.

"Control" Requirements:

More Control ← Less Centralized Control

Centralized Plan Controlled Execution

Centralized Plan Guided Execution

Special Operations Unit:

Conventional Unit:

Decentralized Plan Guided Execution

Centralized Plan Decentralized Execution

| 1940s | 1950s | 1960s | 1970s | 1980s | 1990s | 2000+ |

More Control ← Less Centralized Control

Communications Systems:

More Control ← → Less Control

Special Operations Comm Sys:

- TACSAT
  EHFSAT
  SEC
  Data/Voice

- SMRS
  Voice

- SMRS
  Data

- TACSAT
  SEC
  HF Data/Vox
  SEC
  Voice

- HF
  Ener
  CW

Conventional Comm Sys:

- TACSAT
  SEC
  Voice

- FM
  SEC
  Voice

- FM
  N/Sec
  Voice

- HF
  Voice
  CW

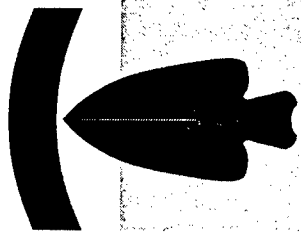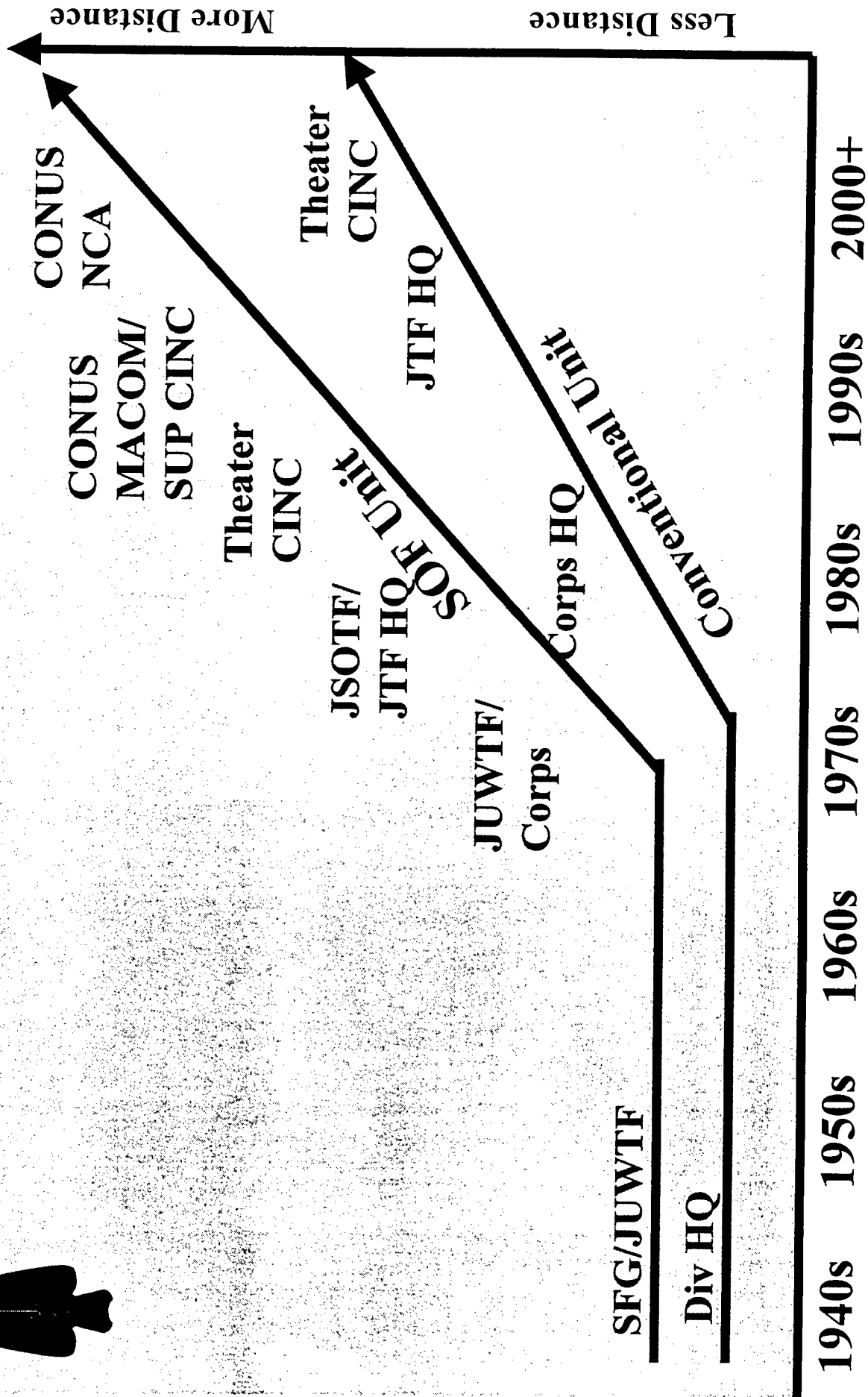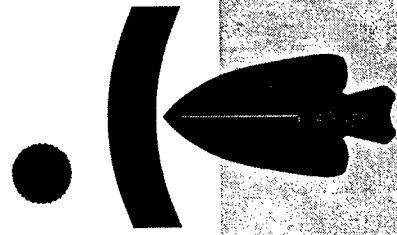| 1940s | 1950s | 1960s | 1970s | 1980s | 1990s | 2000+ |
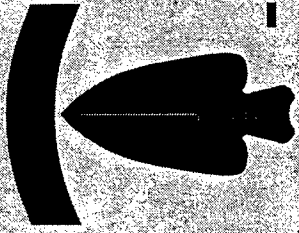
- High bandwidth reach-back systems required by ARSOF units at the battalion-level closely mirror the requirements of EAC units in the Conventional Army.

- As a result, ARSOF has an opportunity to take advantage of EAC communications initiatives programmed by the conventional Army.

Reach-Back Requirements:

More Distance

Less Distance

	1940s	1950s	1960s	1970s	1980s	1990s	2000+

SFG/JUWTF

Div HQ

JUWTF/Corps

JSOTF/JTF HQ

Theater CINC

CONUS MACOM/SUP CINC

CONUS NCA

SOF Unit

JTF HQ

Theater CINC

Corps HQ

Conventional Unit

Reach-Back Data Load:

More Data ← → **Less Data**

EHF SATCOM

Tri-Band SATCOM

Tri-Band SATCOM

TACSAT SHF-SAT

SHF-SAT

TACSAT

SF Group

Conventional Corps

TACSAT HF MUX

MSE

HF RATT

FM Radio

HF Radio

FM/HF Radio

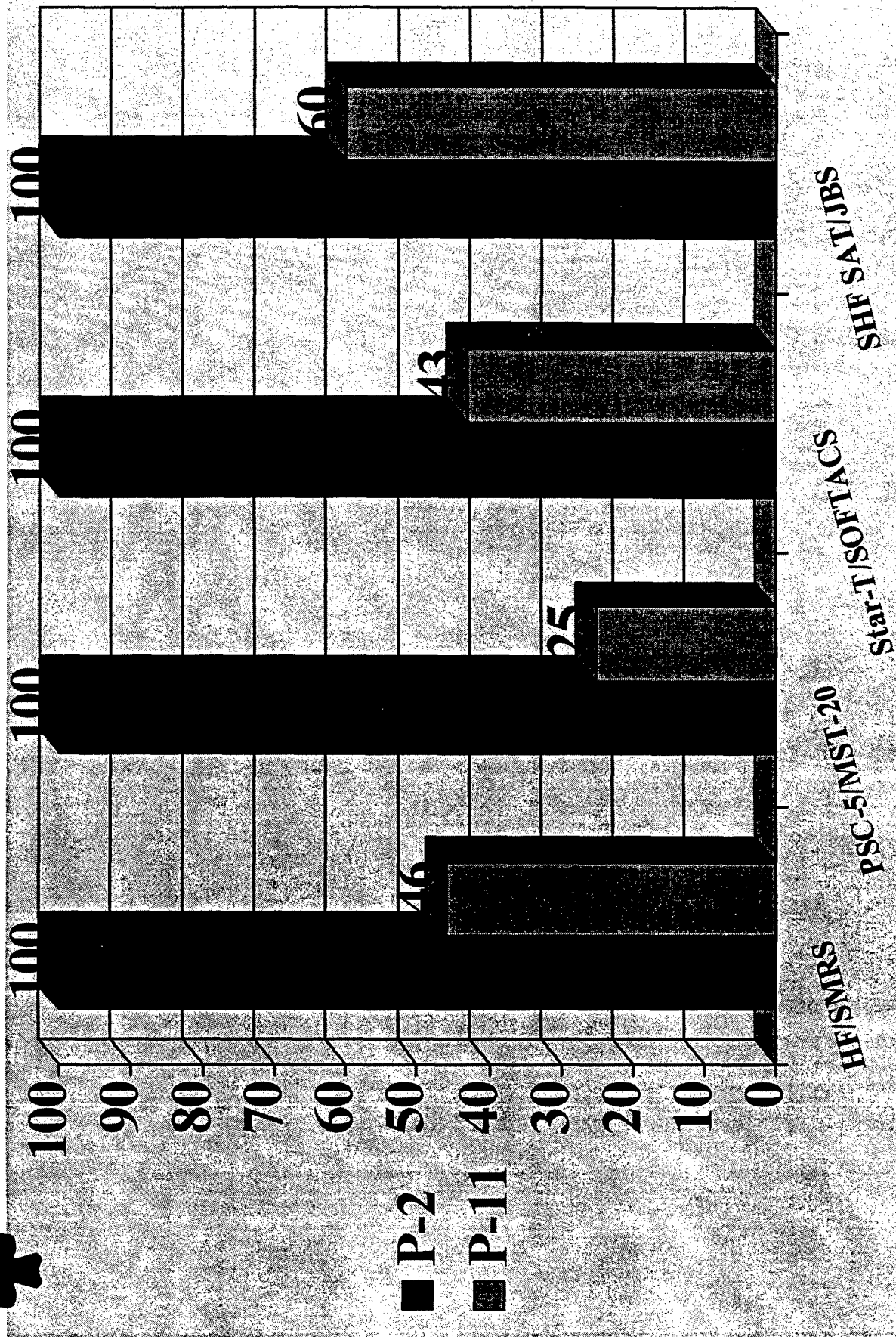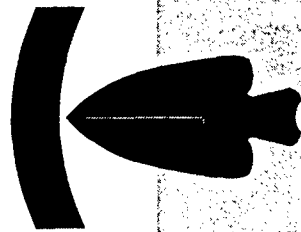| 1940s | 1950s | 1960s | 1970s | 1980s | 1990s | 2000+ |

Conventional Army (P-2) funded communications programs have a better "field-to-TOE" record than SOF (P-11) programs. In most cases, SOF funded equipment is fielded at less than 50% of the MTOE requirement, while Army programs usually reach 100%.

Commo System Funding:

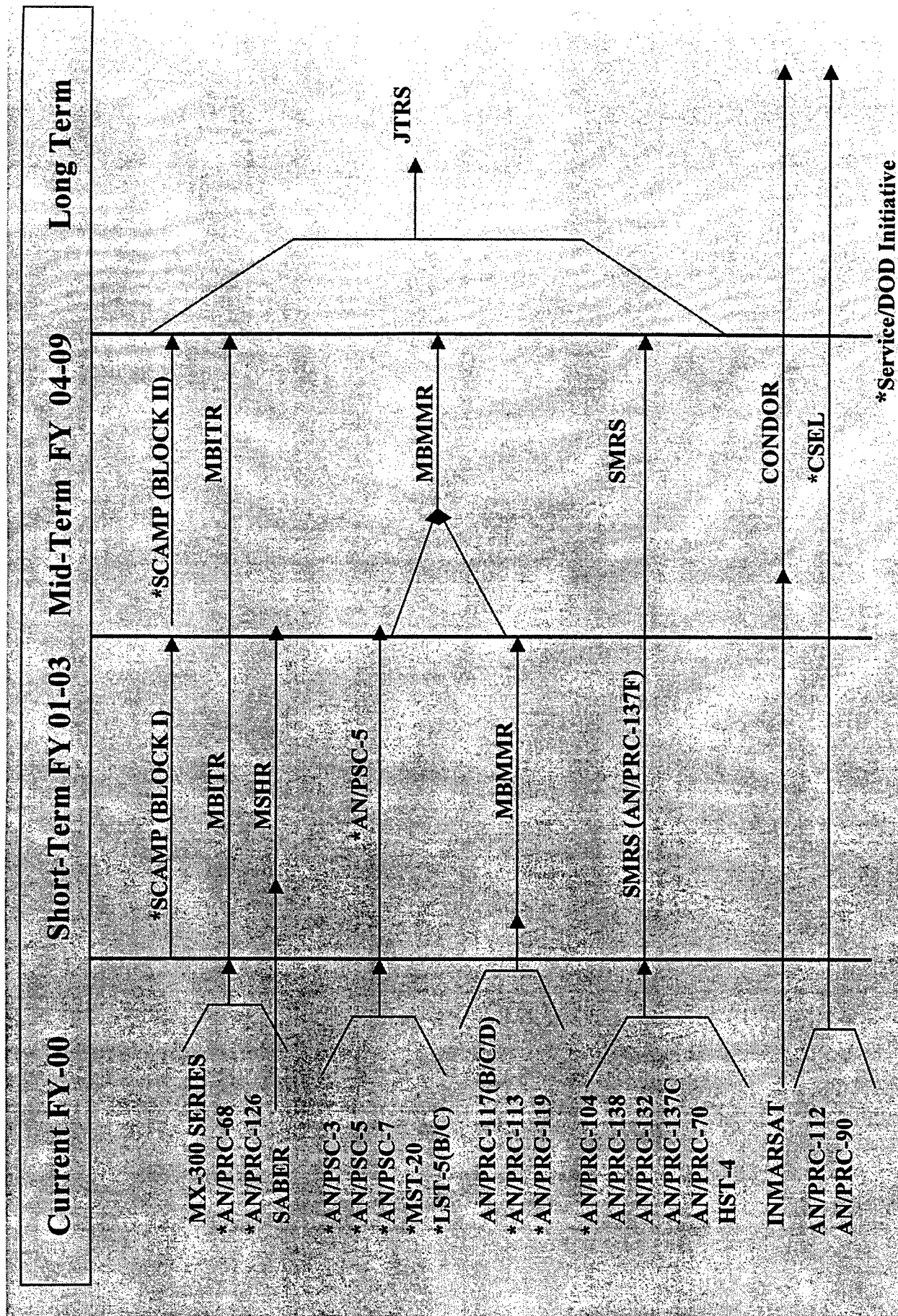Bar chart showing funding percentages for commo systems comparing P-2 and P-11:

- HF/SMRS: P-2 = 100, P-11 = 46
- PSC-5/MST-20: P-2 = 100, P-11 = 25
- Star-T/SOFTACS: P-2 = 100, P-11 = 43
- SHF SAT/JBS: P-2 = 100, P-11 = 60

Legend: ■ P-2   ■ P-11

PSYOP System Funding:

EQUIPMENT	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	TOTAL
MPC					1		1,1		1,1,1
TMPC	1,1	1							1,1,1
PDS R/T		4,3,3	1			2		2	5,5,5
PDS R/O		3,1	1,1	2,1	1,1	4,2,1		6,3,2	17,9,4
LRB MED PWR AM				1					1,0,0
LRB MED PWR FM			1			1			1,1,0
LRB MED PWR TV						1			1,0,0
FABS AM		2	1	1,1		2		1	3,3,1
FABS FM			2	1,1	2,1	1		1	3,3,3
FABS SW						2	1	1,1	3,1,2
FABS TV					1	3,1	1	1	3,1,3

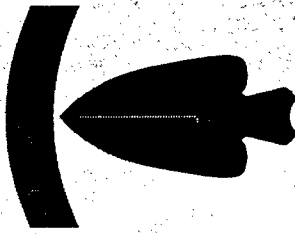Ledgend:
MPC - Media Production center
TMPC - Theater Media Production Center
PDS - PSYOP Distribution System
LRB - Long Range Broadcast
FABS - Fly Away Broadcast System

BLUE =   29 MAR 00
RED =   19 OCT 00
BLACK =15 NOV 00

RADIO SYSTEM MIGRATION

Current FY-00	Short-Term FY 01-03	Mid-Term FY 04-09	Long Term

JTRS

*SCAMP (BLOCK I)

*SCAMP (BLOCK II)

MBITR

MBITR

MSHR

*AN/PSC-5

MBMMR

MBMMR

SMRS (AN/PRC-137F)

SMRS

CONDOR

*CSEL

MX-300 SERIES
*AN/PRC-68
*AN/PRC-126
SABER

*AN/PSC-3
*AN/PSC-5
*AN/PSC-7
*MST-20
*LST-5(B/C)

AN/PRC-117(B/C/D)
*AN/PRC-113
*AN/PRC-119

*AN/PRC-104
AN/PRC-138
AN/PRC-132
AN/PRC-137C
AN/PRC-70
HST-4

INMARSAT

AN/PRC-112
AN/PRC-90

*Service/DOD Initiative

-The ARSOF community needs to rethink its communications doctrine to catch up with the reality of modern operational requirements.

-ARSOF needs to "ride the Component Service Train" wherever possible; Taking advantage of Army common solutions that fit SOF requirements.

-P-11 funds must "buy out" validated TOE requirements.